Amendments to the Claims:

Please amend claims 5, 9, 13 and 14 as follows. This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (original)   Method for analyzing perfusion images, in particular MR perfusion images, of a human or animal organ including the steps of

(a)   defining at least one contour of the organ, and

(b)   establishing at least one perfusion parameter of a region of interest of said organ within a boundary defined by the at least one contour,

characterized in that steps (a) and (b) are repeated in a series of iterative steps wherein for each subsequent iterative step the definition of the at least one contour in step (a) is varied, and the series of iterative steps is terminated after reaching an optimal value for the at least one perfusion parameter in step (b).

2. (original)   Method according to claim 1, characterized in that the organ is a heart and the region of interest is the heart's myocardium or a segment thereof.

3. (original)   Method according to claim 2, characterized in that in step (a) the inner contour and/or the outer contour of the heart's myocardium is defined.

4. (previously presented)   Method according to claim 1, characterized in that in step (b) the perfusion rate or upslope and/or the time at which the maximum perfusion rate occurs is established.

5. (currently amended) Method ~~according to claim 4,~~ for analyzing perfusion images, in particular MR perfusion images, of a human or animal organ including the steps of

(a)   defining at least one contour of the organ, and

(b)   establishing at least one perfusion parameter of a region of interest of said organ within a boundary defined by the at least one contour,

characterized in that steps (a) and (b) are repeated in a series of iterative steps wherein for each subsequent iterative step the definition of the at least one contour in step

(a) is varied, and that in step (b) the myocardium's inner contour is varied and that the series of iterative steps is terminated after reaching an essentially constant value for the perfusion rate or upslope and/or said time at which the maximum perfusion rate occurs, as compared to the perfusion rate's value and/or time in a previous iterative step.

6. (previously presented)   Software program for a computer of an apparatus implemented to execute a method for analyzing perfusion images, in particular MR perfusion images, of a human or animal organ including the steps of

(a)   defining at least one contour of the organ, and

(b)   establishing at least one perfusion parameter of a region of interest of said organ within a boundary defined by the at least one contour,

        characterized in that steps (a) and (b) are repeated in a series of iterative steps wherein for each subsequent iterative step the definition of the at least one contour in step (a) is varied, and the series of iterative steps is terminated after reaching an optimal value for the at least one perfusion parameter in step (b).

7. (previously presented)   Software program according to claim 6, characterized in that in step (a) the inner contour and/or the outer contour of the heart's myocardium is defined.

8. (original)   Software program according to claim 6 or 7, characterized in that in step (b) the perfusion rate or upslope and/or the time at which the maximum perfusion rate occurs is established.

9. (currently amended) ~~Software program according to claim 8,~~ Software program for a computer of an apparatus implemented to execute a method for analyzing perfusion images, in particular MR perfusion images, of a human or animal organ including the steps of

(a)   defining at least one contour of the organ, and

(b)   establishing at least one perfusion parameter of a region of interest of said organ within a boundary defined by the at least one contour,

characterized in that ~~in~~ step<u>s (a) and (b) are repeated in a series of iterative</u> <u>steps wherein for each subsequent iterative step the definition of the at least one contour in</u> <u>step (a) is varied and the inner contour and/or the outer contour of the heart's myocardium is</u> <u>defined, and in step (b) the perfusion rate or upslope and/or the time at which the maximum</u> <u>perfusion rate occurs is established,</u> the myocardium's inner contour is varied and that the series of iterative steps is terminated after reaching an essentially constant value for the perfusion rate and/or said time at which the maximum perfusion rate occurs, as compared to the perfusion rate's value and/or time in a previous iterative step <u>or after reaching an optimal</u> <u>value for the at least one perfusion parameter.</u>

10. (original)   Apparatus for analyzing perfusion images, in particular MR perfusion images, of a human or animal organ, arranged to execute the steps of

(a)   defining at least one contour of the organ, and

(b)   establishing at least one perfusion parameter of a region of interest of said organ within a boundary defined by the at least one contour,

characterized in that during operation steps (a) and (b) are repeated in a series of iterative steps wherein for each subsequent iterative step the definition of the at least one contour in step (a) is varied, and the series of iterative steps is terminated after reaching an optimal value for the at least one perfusion parameter in step (b).

11. (original)   Apparatus according to claim 10, characterized in that in step (a) the inner contour and/or the outer contour of the heart's myocardium is defined.

12. (original)   Apparatus according to claim 10 or 11, characterized in that in step (b) the perfusion rate or upslope and/or the time at which the maximum perfusion rate occurs is established.

13. (currently amended)   ~~Apparatus according to claim 12,~~ <u>Apparatus for analyzing</u> <u>perfusion images, in particular MR perfusion images, of a human or animal organ, arranged</u> <u>to execute the steps of</u>

<u>(a)   defining at least one contour of the organ, and</u>

(b)   establishing at least one perfusion parameter of a region of interest of said organ within a boundary defined by the at least one contour,

characterized in that ~~in~~ steps (a) and (b) are repeated in a series of iterative steps wherein for each subsequent iterative step the definition of the at least one contour in step (a) is varied and the inner contour and/or the outer contour of the heart's myocardium is defined, and in step (b) the perfusion rate or upslope and/or the time at which the maximum perfusion rate occurs is established, the myocardium's inner contour is varied and that the series of iterative steps is terminated after reaching an essentially constant value for the perfusion rate and/or said time at which the maximum perfusion rate occurs, as compared to the perfusion rate's value and/or time in a previous iterative step or after reaching an optimal value for the at least one perfusion parameter.

14. (currently amended)   A ~~Software program~~ computer readable medium encoded with a computer program to execute the method according to claim 1.

15. (previously presented)   Apparatus comprising means to execute the method according to claim 1.